Iron and Steel Engineer Index for 1977

LIST OF AUTHORS

A

ADAMS, R. W.—"Impact of *AISE Standard No. 6* on Armco Steel," May, p 31
AINSWORTH, J.—"Tinned scrap use in iron and steel," Feb., p 63
ARDITI, I.—"We can't afford it!" Nov., p 61
ASAKAWA, H., K. HIKINO and T. ICHIMARU—"Operation of a fully continuous tandem cold mill at Fukuyama," Feb., p 33

B

BAGGLEY, G. W., P. R. BLEACKLEY and S. J. KLETCH—"Theory and practice for design, inspection and maintenance—Coke-oven gas distribution and instrumentation systems," June, p 34
BAKER, J. H., and R. F. SMITH—"A new development in roll force measurement," Nov., p 53
BALZI, G.—"13 3/8-in. seamless pipe mill for Dalmine, SpA," Dec., p 25
BETTS, W. H.—"Basic concepts of roll surface behavior in stands F-1, F-2 and F-3," Jan., p 44
BLEACKLEY, P. R., S. J. KLETCH and G. W. BAGGLEY—"Theory and practice for design, inspection and maintenance—Coke-oven gas distribution and instrumentation systems," June, p 34
BRUNO, T., DR. ING. P. FONTANA and DR. ING. G. CARRARA—"Energy cost savings as applied to the design of reheat furnaces," July, p 40

C

CALDERON, A.—"Controlling emissions from coke ovens," Aug., p 42
CAMPBELL, J. M. and N. W. MINESINGER—"Emergency trunnion pin repair at Kaiser's BOSP shop," Dec., p 29
CARRARA, DR. ING. G., T. BRUNO and DR. ING. P. FONTANA—"Energy cost savings as applied to the design of reheat furnaces," July, p 40
CARRILLO, D. H., K. A. JACKSON and F. A. RODRIGUEZ—"Concepts relevant to steelmaking with HYL metallized pellets," Jan., p 57
CLEAVER, F. W. and W. R. LAWS—"BSC's new high-pressure ceramic recuperator," Sept., p 54
COLIN, R., G. THOMAS, S. WILMOTTE and M. ECONOMOPOULOS—"New approach to computer setup of the hot strip mill," Sept., p 70
CRAIG, R. H.—"Electrical power system of an integrated steel mill," May, p 25

D

DOMONOSKI, D. D., R. P. FAHERTY and G. A. PARK—"Thermite welding of crane rails at Kaiser Steel," Sept., p 77

E

ECONOMOPOULOS, M., R. COLIN, G. THOMAS and S. WILMOTTE—"New approach to computer setup of the hot strip mill," Sept., p 70
ENDO, T., M. FUKUDA, Y. NAKAGAWA and DR. J. HONDA—"Centrifugally cast rolls outperform double-poured rolls," Oct., p 50
ERICKSON, W. K.—"Metal cleaning by microscalping," Feb., p 43

F

FAHERTY, R. P., G. A. PARK and D. D. DOMONOSKI—"Thermite welding of crane rails at Kaiser Steel," Sept., p 77
FONTANA, DR. ING. P., DR. ING. G. CARRARA and T. BRUNO—"Energy cost savings as applied to the design of reheat furnaces," July, p 40
FOX, R. L.—"Preventive maintenance of rotating machinery using vibration detection," April, p 52
FREIN, J. M.—"Friction and wear characteristics of rolls coated with tungsten carbide," Dec., p 52
FUKUDA, M., Y. NAKAGAWA, DR. J. HONDA and T. ENDO—"Centrifugally cast rolls outperform double-poured rolls," Oct., p 50

G

GIARDINA, P., M. RIVOLTA and L. PASOLINI—"A new tool for coordinated design of hot strip mill finishing trains," Sept., p 59
GIBSON, J. R.—"Tin coating weight gage at U.S. Steel's Pittsburg Works," Jan., p 51
GIRY, G.—"Solmer's 90-in. hot strip mill," Jan., p 33

H

HANICH, C. and W. G. WRIGHT—"Computer simulation of tandem roughing mill rolling," Jan., p 39
HARRIGAN, A. H.—"No expendable U.S. industries," Dec., p 59
HEINE, H. G.—"Electric conductive billet heaters," Feb., p 38
HELWICK, R. and A. F. LISANTI—"Ultrafiltration oil reclamation process," March, p 60
HESSER, L., M. LeMEUR and G. RICHTER—"Newest methods applied to crane wheel calculations in Europe," July, p 35
HIKINO, K., T. ICHIMARU and H. ASAKAWA—"Operation of a fully continuous tandem cold mill at Fukuyama," Feb., p 33
HOGAN, S.J., W. T.—"Future steel plans in the Third World," Nov., p 25
HONDA, DR. J., T. ENDO, M. FUKUDA and Y. NAKAGAWA—"Centrifugally cast rolls outperform double-poured rolls," Oct., p 50

I

ICHIMARU, T., H. ASAKAWA and K. HIKINO—"Operation of a fully continuous tandem cold mill at Fukuyama," Feb., p 33
IVACHEFF, D. P. and G. E. WOOD—"Mill modulus variation and hysteresis—Their effect on hot strip mill AGC," Jan., p 65

J

JACKSON, K. A., F. A. RODRIGUEZ and D. H. CARRILLO—"Concepts relevant to steelmaking with HYL metallized pellets," Jan., p 57
JEDENOFF, G. A.—"Safety starts with me," June, p 33
JUDD, DR. R. R.—"Chill microstructure of cast-iron hot strip mill work rolls," Sept., p 83

K

KEENAN, G. F. and D. M. MORRISON—"A current look at pulverized coal injection for blast furnaces," Oct., p 30
KLETCH, S. J., G. W. BAGGLEY and P. R. BLEACKLEY—"Theory and practice for design, inspection and maintenance—Coke-oven gas distribution and instrumentation systems," June, p 34
KOIKE, T., Y. MOROOKA, A. YAMASHITA and S. MATSUKA—"Tension-free control applied to tandem roughers of hot strip mills," July, p 54
KOTSCH, J. A.—"A solution to failure and wear problems," Oct., p 35
KOTSCH, J. A.—"Babcock & Wilcox opens new Ambridge tube mill," Sept., p 95
KOTSCH, J. A.—"Lukens Steel Co.'s new process for low-sulfur steel," June, p 53
KOTSCH, J. A.—"Georgetown Texas Steel Corp.—Korf's second U.S. mini-mill," July, p 33
KOTSCH, J. A.—"Midrex activities detailed," July, p 77
KOTSCH, J. A., C. J. LABEE and B. A. PALOWITCH—"Developments in the Iron and Steel Industry U.S. and Canada—1976," Feb., p D-1

L

LABEE, C. J.—"International Iron and Steel Institute—11th annual meeting", Dec., p 71
LABEE, C. J.—"HYLSA's Puebla 2—A fantastic success," Oct., p 25
LABEE, C. J.—"Sliding bed HCl regeneration process," Sept., p 91
LABEE, C. J.—"Speed and safety emphasized in removing furnace linings or scabs," April, p 89
LABEE, C. J.—"Summary of the IISI meeting—Osaka, Japan," Jan., p 80
LABEE, C. J., B. A. PALOWITCH and J. A. KOTSCH—"Developments in the Iron and Steel Industry U.S. and Canada—1976," Feb., p D-1
LAWS, W. R. and F. W. CLEAVER—"BSC's new high-pressure ceramic recuperator," Sept., p 54
LeMEUR, M., G. RICHTER and L. HESSER—"Newest methods applied to crane wheel calculations in Europe," July, p 35
LISANTI, A. F. and R. HELWICK—"Ultrafiltration oil reclamation process," March, p 60

M

MAIER, C. C.—"A little righteous indignation," Feb., p 52
MALLICK, E. W.—"Packaging America's freedom," March, p 33
MALOTT, R. H.—"Regulatory overload," April, p 105
MATSUKA, S., T. KOIKE, Y. MOROOKA and A. YAMASHITA—"Tension-free control applied to tandem roughers of hot strip mills," July, p 54
MATTIUSSI, A. and J. W. RIPPIN—"Latest advances in HCl coil pickling," Dec., p 61
MAY, M. P.—"Suspension gasifier offers economies of scale," Nov., p 46
MEIER, M.—"Combined tube welding and drawing line," Sept., p 51
MILLER, J. R.—"Global status of direct reduction—1977," Sept., p 45
MILLETT, W. H.—"Nonpetroleum hydraulic fluids—A projection," May, p 36
MINESINGER, N. W. and J. M. CAMPBELL—"Emergency trunnion pin repair at Kaiser's BOSP shop," Dec., p 29
MONACO, G.—"Dynamics of rolling mills—Mathematical models and experimental results," Dec., p 35
MOORE, A. I. W.—"The PERA CUTFAST process—a breakthrough in machining practice," Nov., p 63
MOROOKA, Y., A. YAMASHITA, S. MATSUKA and T. KOIKE—"Tension-free control applied to tandem roughers of hot strip mills," July, p 54
MORRISON, D. M. and G. F. KEENAN—"A current look at pulverized coal injection for blast furnaces," Oct., p 30
MOULTON, R. B.—"New noncontacting gaging techniques," Oct., p 45
MURRAY, T. P.—"A small-target scanning pyrometer for rod mills," May, p 40

N

NAKAGAWA, Y., DR. J. HONDA, T. ENDO and M. FUKUDA—"Centrifugally cast rolls outperform double-poured rolls," Oct., p 50

O

O'MALLEY, M. B.—"Coke-oven door jamb packing and repair," July, p 59
OSTERMAN, B. V.—"Conception and birth of a 'better idea' in construction—Ford's 68-in. hot strip mill," April, p 35

P

PALMER, W. L.—"Republic's great American bar mill—Cold finishing operations at Gary, Ind.," Aug., p 50
PALOWITCH, B. A., J. A. KOTSCH and C. J. LABEE—"Developments in the Iron and Steel Industry U.S. and Canada—1976," Feb., p D-1
PARK, G. A., D. D. DOMONOSKI and R. P. FAHERTY—"Thermite welding of crane rails at Kaiser Steel," Sept., p 77
PASOLINI, L., P. GIARDINA and M. RIVOLTA—"A new tool for coordinated design of hot strip mill finishing trains," Sept., p 59
POPLAWSKI, J. V.—"Predicting operating temperatures in rolling element bearings for backup rolls," March, p 41

R

REHDER, J. E.—"Ironmaking in a cupola," July, p 52
RICCIATTI, R. L. and A. ZELTKALNS—"Force sensing in rolling mills," Jan., p 72
RICHTER, G., L. HESSER and M. LeMEUR—"Newest methods applied to crane wheel calculations in Europe," July, p 35
RIPPIN, J. W. and A. MATTIUSSI—"Latest advances in HCl coil pickling," Dec., p 61
RIVOLTA, M., L. PASOLINI and P. GIARDINA—"A new tool for coordinated design of hot strip mill finishing trains," Sept., p 59
RODRIGUEZ, F. A., D. H. CARRILLO and K. A. JACKSON—"Concepts relevant to steelmaking with HYL metallized pellets," Jan., p 57
RUDOLPH, H. and S. SAWYER—"Engineering criteria for a hooded quench car system," March, p 27

S

SAUNDERS, DR. L. M.—"The contour of blast furnace hearths," May, p 44
SAWYER, S. and H. RUDOLPH—"Engineering criteria for a hooded quench car system," March, p 27
SCHUNK, J. H. and DR. A. R. ZECCA—"A dynamic control model of box annealing," June, p 57
SEIFERT, G. R.—"Changing to horizontal coil handling in an 80-in. hot strip mill," Dec., p 47
SEKIMOTO, Y.—"Composite sleeved rolls reduce cost and improve productivity in H-beam mills," Sept., p 64
SHALIMOV, D. SC. A.—"Soviet metallurgy: achievements and prospects," Aug., p 47
SIMMONS, R. P.—"International trade—A growing debate," July, p 65
SJOKVIST, T.—"Thyristor switched capacitors for reactive power compensation," April, p 40
SMITH, R. F. and J. H. BAKER—"A new development in roll force measurement," Nov., p 53
STEINBERG, G.—"Solid state limit switches in the steel industry," Oct., p 39
STONE, J. K.—"A quarter century of oxygen steelmaking," Aug., p 54
SUTTON, JR., J. B.—"Modern straightening machines for pipe, tubes, bars and sections," Nov., p 38

T

THOMAS, G., S. WILMOTTE, M. ECONOMOPOULOS and R. COLIN—"New approach to computer setup of the hot strip mill," Sept., p 70
TRAUBERT, R. M.—"Weirton Steel Div.—Brown's Island coke plant," Jan., p 61
TRISCORI, R. J. and J. H. WAUGH—"Consider all the options for a sinter plant air pollution control system," March, p 36

V

VEREECKE, F. J.—"Furnace design improvements for efficient heating," Aug., p 33

W

WAUGH, J. H. and R. J. TRISCORI—"Consider all the options for a sinter plant air pollution control system," March, p 36
WILLIAMS, C. H.—"Superheating for energy and material conservation in basic oxygen steelmaking," June, p 54
WILMOTTE, S., M. ECONOMOPOULOS, R. COLIN and G. THOMAS—"New approach to computer setup of the hot strip mill," Sept., p 70
WOOD, G. E. and D. P. IVACHEFF—"Mill modulus variation and hysteresis—Their effect on hot strip mill AGC," Jan., p 65
WRIGHT, W. G. and C. HANICH—"Computer simulation of tandem roughing mill rolling," Jan., p 39

Y

YAMASHITA, A., S. MATSUKA, T. KOIKE and Y. MOROOKA—"Tension-free control applied to tandem roughers of hot strip mills," July, p 54

Z

ZECCA, DR. A. R. and J. H. SCHUNK—"A dynamic control model of box annealing," June, p 57
ZELTKALNS, A. and R. L. RICCIATTI—"Force sensing in rolling mills," Jan., p 72
ZWISSLER, G. A.—"Kaiser Steel's modernization program to increase capacity to 3.6 million ton," Sept., p 41

LIST OF SUBJECTS

A

"A current look at pulverized coal injection for blast furnaces"—G. F. KEENAN and D. M. MORRISON, Oct., p 30
"A dynamic control model of box annealing"—DR. A. R. ZECCA and J. H. SCHUNK, June, p 57
"A little righteous indignation"—C. C. MAIER, Feb., p 52
"A new development in roll force measurement"—R. F. SMITH and J. H. BAKER, Nov., p 53
"A new tool for coordinated design of hot strip mill finishing trains"—L. PASOLINI, P. GIARDINA and M. RIVOLTA, Sept., p 59
"A quarter century of oxygen steelmaking"—J. K. STONE, Aug., p 54
"A relic not for scrapping—Our town's last bessemer to live," June, p 66
"A small-target scanning pyrometer for rod mills"—T. P. MURRAY, May, p 40
"A solution to failure and wear problems"—J. A. KOTSCH, Oct., p 35
"Advances in strip tensioning for coil slitting lines," July, p 76
"Air cleaning system, Timken's $10 million," Feb., p 65
"Air pollution control program, National Roll completes," Feb., p 69
"Air pollution control system, Consider all the options for a sinter plant"—J. H. WAUGH and R. J. TRISCORI, March, p 36
"AISE Annual Convention and Iron and Steel Exposition—Pictorial Review, 1977," Nov., p 82
"AISE Annual Convention—Abstracts of papers to be presented, 1977," Sept., p CI-25
"AISE Annual Convention Chairmen, 1977," Sept., p CI-17
"AISE Annual Convention Program, 1977," Sept., p CI-9
"AISE Annual Convention Show Guide and Program—1977, Iron and Steel Exposition and," Sept., p CI-1
"AISE Awards and Scholarships," March, p 14
"AISE District Chairmen, Vice Chairmen and Secretaries, 1977–1978," Oct., p 59
"AISE for 1978, W. M. Rankin elected President of," Oct., p 23
"AISE-Kelly award winners, Executive Committee selects 1976," Nov., p 82
"AISE National Committees, 1977," Feb., p 47
"AISE Officers and Directors, 1977," Jan., p 26
"AISE Rolling Mill Conference—Abstracts of papers to be presented, 1977," April, p 53
"AISE Rolling Mill Conference Chairmen, 1977," April, p 62
"AISE Rolling Mill Conference—Pictorial review, 1977," June, p 30
"AISE Rolling Mill Conference Program, 1977," April, p 31
"AISE Scholarships Awarded, Four," June, p 53
"AISE—Seventy years of service to the iron and steel industry," April, p 48
"*AISE Standard No. 6* on Armco Steel, Impact of"—R. W. ADAMS, May, p 31
"AISE Utah Invitational—Pictorial Review, Fifth Annual," Sept., p 106
"AISE Western Conference—Pictorial Review," Nov., p 81
"AISI chairman, E. B. Speer, speaks out on Merrill Lynch report," Oct., p 43
"Ambridge tube mill, Babcock & Wilcox opens new"—J. A. KOTSCH, Sept., p 95
"Annealing, A dynamic control model of box"—DR. A. R. ZECCA and J. H. SCHUNK, June, p 57
"Armco Steel, Impact of *AISE Standard No. 6* on"—R. W. ADAMS, May, p 31
"Armco's new coke-oven complex," Feb., p 55
"Automated bar handling systems," Nov., p 69

B

"Babcock & Wilcox opens new Ambridge tube mill"—J. A. KOTSCH, Sept., p 95
"Bar handling systems, Automated," Nov., p 69
"Bar mill at Gary, U.S. Steel's newest 12.-in.," March, p 65
"Bar mill—Cold finishing operations at Gary, Ind., Republic's great American"—W. L. PALMER, Aug., p 50
"Bar mill in full production, Sumitomo Metal Industries' 14-in," April, p 77
"Bar mill—part of BSC's bar rationalization scheme, Thrybergh," March, p 71
"Basic concepts of roll surface behavior in stands F-1, F-2 and F-3"—W. H. BETTS, Jan., p 44
"Basic oxygen steelmaking, Superheating for energy and material conservation in"—C. H. WILLIAMS, June, p 54
"Bearings for backup rolls, Predicting operating temperatures in rolling element"—J. V. POPLAWSKI, March, p 41
"Bessemer to live, A relic not for scrapping—Our town's last," June, p 66
"Bethlehem marks 25th year of custom cold roll forming," April, p 101
"Billet heaters, Electric conductive"—H. G. HEINE, Feb., p 38
"Blast furnace hearths, The contour of"—DR. L. M. SAUNDERS, May, p 44
"Blast furnace, Idle for a century, is refired, Old," April, p 99
"Blast furnaces, A current look at pulverized coal injection for"—G. F. KEENAN and D. M. MORRISON, Oct., p 30
"Boston's new building features structural steel," May, p 53
"Bridge reconstructed in record time," April, p 93
"Brown's Island coke plant, Weirton Steel Div.—"—R. M. TRAUBERT, Jan., p 61
"BSC's bar rationalization scheme, Thrybergh bar mill—part of," March, p 71
"BSC's new high-pressure ceramic recuperator"—F. W. CLEAVER and W. R. LAWS, Sept., p 54

C

"Calspan study on reprocessing scrap metal," Feb., p 67
"Capacitors for reactive power compensation, Thyristor switched"—T. SJOKVIST, April, p 40
"Centrifugally cast rolls outperform double-poured rolls"—DR. J. HONDA, T. ENDO, M. FUKUDA and Y. NAKAGAWA, Oct., p 50
"Ceramic recuperator, BSC's new high-pressure"—F. W. CLEAVER and W. R. LAWS, Sept., p 54
"Changing to horizontal coil handling in an 80-in. hot strip mill"—G. R. SEIFERT, Dec., p 47
"Chill microstructure of cast-iron hot strip mill work rolls"—DR. R. R. JUDD, Sept., p 83
"Coal gasification for pelletizing," Oct., p 69
"Coal injection for blast furnaces, A current look at pulverized"—G. F. KEENAN and D. M. MORRISON, Oct., p 30
"Coil handling in an 80-in. hot strip mill, Changing to horizontal"—G. R. SEIFERT, Dec., p 47
"Coke-oven complex, Armco's new," Feb., p 55
"Coke-oven door jamb packing and repair"—M. B. O'MALLEY, July, p 59
"Coke-oven gas distribution and instrumentation systems, Theory and practice for design, inspection and maintenance—"—S. J. KLETCH, G. W. BAGGLEY and P. R. BLEACKLEY, June, p 34
"Coke ovens, Controlling emissions from"—A. CALDERON, Aug., p 42
"Coke plant, Weirton Steel div.—Brown's Island"—R. M. TRAUBERT, Jan., p 61
"Coke quenching, PEC enters energy conservation market—dry," July, p 73
"Cold mill at Fukuyama, Operation of a fully continuous tandem"—K. HIKINO, T. ICHIMARU and H. ASAKAWA, Feb., p 33
"Combined tube welding and drawing line"—M. MEIER, Sept., p 51
"Composite sleeved rolls reduce cost and improve productivity in H-beam mills"—Y. SEKIMOTO, Sept., p 64
"Computer setup of the hot strip mill, New approach to"—S. WILMOTTE, M. ECONOMOPOULOS, R. COLIN and G. THOMAS, Sept., p 70
"Computer simulation of tandem roughing mill rolling"—C. HANICH and W. G. WRIGHT, Jan., p 39
"Conception and birth of a 'better idea' in construction—Ford's 68-in. hot strip mill"—B. V. OSTERMAN, April, p 35
"Concepts relevant to steelmaking with HYL metallized pellets"—F. A. RODRIGUEZ, D. H. CARRILLO and K. A. JACKSON, Jan., p 57
"Consider all the options for a sinter plant air pollution control system"—J. H. WAUGH and R. J. TRISCORI, March, p 36
"Continuous tandem cold mill at Fukuyama, Operation of a fully"—K. HIKINO, T. ICHIMARU and H. ASAKAWA, Feb., p 33

"Contour of blast furnace hearths, The"—DR. L. M. SAUNDERS, May, p 44
"Controlling emissions from coke ovens"—A. CALDERON, Aug., p 42
"Crane rails at Kaiser Steel, Thermite Welding of"—G. A. PARK, D. D. DOMONOSKI and R. P. FAHERTY, Sept., p 77
"Crane wheel calculations in Europe, Newest methods applied to"—M. LeMEUR, G. RICHTER and L. HESSER, July, p 35
"Cupola, Ironmaking in a"—J. E. REHDER, July, p 52
"CUTFAST process—a breakthrough in machining practice, The PERA"—A. I. W. MOORE, Nov., p 63

D

"Dalmine, SpA, 13 3/8-in. seamless pipe mill for"—G. BALZI, Dec., p 25
"Developments in the Iron and Steel Industry U.S. and Canada—1976"—J. A. KOTSCH, C. J. LABEE and B. A. PALOWITCH, Feb., p D-1
"Direct reduction process. First industrial application of Thyssen Purofer," Aug., p 87
"Direct reduction—1977, Global status of"—J. R. MILLER, Sept., p 45
"Does steel need an increase in prices?" Jan., p 89
"Door jamb packing and repair, Coke-oven"—M. B. O'MALLEY, July, p 59
"Double-poured rolls, Centrifugally cast rolls outperform"—DR. J. HONDA, T. ENDO, M. FUKUDA and Y. NAKAGAWA, Oct., p 50
"Drawing line, Combined tube welding and"—M. MEIER, Sept., p 51
"Dry coke quenching, PEC enters energy conservation market—," July, p 73
"Dynamic control model of box annealing, A"—DR. A. R. ZECCA and J. H. SCHUNK, June, p 57
"Dynamics of rolling mills—Mathematical models and experimental results"—G. MONACO, Dec., p 35

E

"Electric conductive billet heaters"—H. G. HEINE, Feb., p 38
"Electrical power system of an integrated steel mill"—R. H. CRAIG, May, p 25
"Emergency trunnion pin repair at Kaiser's BOSP shop"—J. M. CAMPBELL and N. W. MINESINGER, Dec., p 29
"Emissions from coke ovens, Controlling"—A. CALDERON, Aug., p 42
"Energy conservation market—dry coke quenching, PEC," July, p 73
"Energy cost savings as applied to the design of reheat furnaces"—DR. ING P. FONTANA, DR. ING. G. CARRARA and T. BRUNO, July, p 40
"Engineering criteria for a hooded quench car system"—H. RUDOLPH and S. SAWYER, March, p 27
"Executive Committee selects 1976 AISE-Kelly award winners," Nov., p 82

F

"Failure and wear problems, A solution to"—J. A. KOTSCH, Oct., p 35
"Fifth Annual AISE Utah Invitational—Pictorial Review," Sept., p 106
"Finishing trains, A new tool for coordinated design of hot strip mill"—L. PASOLINI, P. GIARDINA and M. RIVOLTA, Sept., p 59
"First industrial application of Thyssen Purofer direct reduction process," Aug., p 87
"Force measurement, A new development in roll"—R. F. SMITH and J. H. BAKER, Nov., p 53
"Force sensing in rolling mills"—A. ZELTKALNS and R. L. RICCIATTI, Jan., p 72
"Ford's 68-in. hot strip mill, Conception and birth of a 'better idea' in construction—"—B. V. OSTERMAN, April, p 35
"Foreign steel is no bargain," Nov., p 59
"Forging process cuts steel input by 75%, Spin," April, p 61
"Four AISE Scholarships Awarded," June, p 53
"Friction and wear characteristics of rolls coated with tungsten carbide"—J. M. FREIN, Dec., p 52
"Fukuyama, Operation of a fully continuous tandem cold mill at"—K. HIKINO, T. ICHIMARU and H. ASAKAWA, Feb., p 33
"Furnace design improvements for efficient heating"—F. J. VEREECKE, Aug., p 33
"Furnace, Oregon Steel Mills' new slab reheat," April, p 103
"Furnaces, Energy cost savings as applied to the design of reheat"—DR. ING. P. FONTANA, DR. ING. G. CARRARA and T. BRUNO, July, p 40
"Future steel plans in the Third World"—W. T. HOGAN, S.J., Nov., p 25

G

"Gage at U.S. Steel's Pittsburg Works, Tin coating weight"—J. R. GIBSON, Jan., p 51
"Gaging techniques, New noncontacting"—R. B. MOULTON, Oct., p 45
"Gary, Ind., Republic's great American bar mill—Cold finishing operations at"—W. L. PALMER, Aug., p 50
"Gary, U.S. Steel's newest 12-in. bar mill at," March, p 65
"Gas distribution and instrumentation systems, Theory and practice for design, inspection and maintenance—Coke-oven"—S. J. KLETCH, G. W. BAGGLEY and P. R. BLEACKLEY, June, p 34
"Gasification for pelletizing, Coal," Oct., p 69
"Gasifier offers economies of scale, Suspension"—M. P. MAY, Nov., p 46
"Georgetown Texas changes marsh into steel mill site," Feb., p 73
"Georgetown Texas Steel Corp.—Korf's second U.S. mini-mill"—J. A. KOTSCH, July, p 33
"GKN (South Wales) Ltd., Rod mill at," March, p 62
"Global status of direct reduction—1977"—J. R. MILLER, Sept., p 45
"Greenfield steel plants, The need and the green for," June, p 52

H

"H-beam mills, Composite sleeved rolls reduce cost and improve productivity"—Y. SEKIMOTO, Sept., p 64
"HCl coil pickling, Latest advances in"—J. W. RIPPIN and A. MATTIUSSI, Dec., p 61
"HCl regeneration process, Sliding bed"—C. J. LABEE, Sept., p 91
"Hearths, The contour of blast furnace"—DR. L. M. SAUNDERS, May, p 44
"Heaters, Electric conductive billet"—H. G. heine, Feb., p 38
"Heating, Furnace design improvements for efficient"—F. J. VEREECKE, Aug., p 33
"Hooded quench car system, Engineering criteria for a"—H. RUDOLPH and S. SAWYER, March, p 27
"Horizontal coil handing in an 80-in. hot strip mill, Changing to"—G. R. SEIFERT, Dec., p 47
"Hot strip mill AGC, Mill modulus variation and hysteresis—Their effect on"—G. E. WOOD and D. P. IVACHEFF, Jan., p 65
"Hot strip mill, Conception and birth of a 'better idea' in construction—Ford's 68-in."—B. V. OSTERMAN, April, p 35
"Hot strip mill finishing trains, A new tool for coordinated design of"—L. PASOLINI, P. GIARDINA and M. RIVOLTA, Sept., p 59
"Hot strip mill, New approach to computer setup of the"—S. WILMOTTE, M. ECONOMOPOULOS, R. COLIN and G. THOMAS, Sept., p 70
"Hot strip mill work rolls, Chill microstructure of cast-iron"—DR. R. R. JUDD, Sept., p 83
"Hot strip mills, Tension-free control applied to tandem roughers of"—A. YAMASHITA, S. MATSUKA, T. KOIKE and Y. MOROOKA, July, p 54
"Hydraulic fluids—A projection, Nonpetroleum"—W. H. MILLETT, May, p 36
"HYL metallized pellets, Concepts relevant to steelmaking with"—F. A. RODRIGUEZ, D. H. CARRILLO and K. A. JACKSON, Jan., p 57
"HYLSA's Puebla 2—A fantastic success"—C. J. LABEE, Oct., p 25
"Hysteresis—Their effect on hot strip mill AGC, Mill modulus variation and"—G. E. WOOD and D. P. IVACHEFF, Jan., p 65

I

"IISI meeting—Osaka, Japan, Summary of the"—C. J. LABEE, Jan., p 80
"Impact of *AISE Standard No. 6* on Armco Steel"—R. W. ADAMS, May, p 31
"Instrumentation systems, Theory and practice for design, inspection and maintenance—Coke-oven gas distribution and"—S. J. KLETCH, G. W. BAGGLEY and P. R. BLEACKLEY, June, p 34
"International Iron and Steel Institute—11th annual meeting"—C. J. LABEE, Dec., p 71
"International trade—A growing debate"—R. P. SIMMONS, July, p 65
"Iron and Steel Exposition and AISE Annual Convention Show Guide and Program—1977," Sept., p CI-1
"Iron and steel industry, Seventy years of service to the," April, p 48
"Iron and Steel Industry U.S. and Canada—1977, Developments in the"—J. A. KOTSCH, C. J. LABEE and B. A. PALOWITCH, Feb., p D-1
"Ironmaking in a cupola"—J. E. REHDER, July, p 52
"Ivaco, Solid state limit switches control flying shears at," Jan., p 91

K

"Kaiser Steel, Thermite welding of crane rails at"—G. A. PARK, D. D. DOMONOSKI and R. P. FAHERTY, Sept., p 77
"Kaiser Steel's modernization program to increase capacity to 3.6 million ton"—G. A. ZWISSLER, Sept., p 41
"Kaiser's BOSP shop, Emergency trunnion pin repair at"—J. M. CAMPBELL and N. W. MINESINGER, Dec., p 29
"Kelly award winners, Executive Committee selects 1976 AISE—," Nov., p 82
"Koppers' Engineering and Construction Div. projects in 1976," Feb., p 54
"Korf's second U.S. mini-mill, Georgetown Texas Steel Corp.—"—J. A. KOTSCH, July, p 33

L

"Laclede, Modernized rod mill at," Aug., p 81
"Lake Erie Development, Stelco's," June, p 65
"Latest advances in HCl coil pickling"—J. W. RIPPIN and A. MATTIUSSI, Dec., p 61
"Lighting for Valley Mold and Iron, New," Feb., p 61
"Limit switches control flying shears at Ivaco, Solid state," Jan. p 91
"Limit switches in the steel industry, Solid state"—G. STEINBERG, Oct., p 39
"Linings or scabs, Speed and safety emphasized in removing furnace"—C. J. LABEE, April, p 89
"Low-sulfur steel, Lukens Steel Co.'s new process for"—J. A. KOTSCH, June, p 63
"Luken's Steel Co.'s new process for low-sulfur steel"—J. A. KOTSCH, June, p 63

M

"Mack-Hemp foundry completes $7.75 million expansion," Dec., p 67
"Maintenance of rotating machinery using vibration detection, Preventive"—R. L. FOX, April, p 52
"Merrill Lynch report, AISI chairman, E. B. Speer, speaks out on," Oct., p 43
"Metal cleaning by microscalping"—W. K. ERICKSON, Feb., p 43
"Microscalping, Metal cleaning by"—W. K. ERICKSON, Feb., p 43
"Midrex activities detailed," July, p 77
"Mill modulus variation and hysteresis—Their effect on hot strip mill AGC"—G. E. WOOD and D. P. IVACHEFF, Jan., p 65
"Mini-mill Georgetown Texas Steel Corp.—Korf's second U.S."—J. A. KOTSCH, July, p 33
"Modernized rod mill at Laclede," Aug., p 81
"Modern straightening machines for pipe, tubes, bars and sections"—SUTTON, JR., J. B., Nov., p 38
"Modulus variation and hysteresis—Their effect on hot strip mill AGC, Mill"—G. E. WOOD and D. P. IVACHEFF, Jan., p 65

N

"National Roll completes air pollution control program," Feb., p 69
"New approach to computer setup of the hot strip mill"—S. WILMOTTE, M. ECONOMOPOULOS, R. COLIN and G. THOMAS, Sept., p 70
"New lighting for Valley Mold and Iron," Feb., p 61
"New noncontacting gaging techniques"—R. B. MOULTON, Oct., p 45
"New River Gorge Bridge—World's longest main arch span, The," May, p 55
"Newest methods applied to crane wheel calculations in Europe"—M. LeMEUR, G. RICHTER and L. HESSER, July, p 35
"No expendable U.S. industries"—A. H. HARRIGAN, Dec., p 59
"Nonpetroleum hydraulic fluids—A projection"—W. H. MILLETT, May, p 36

O

"Oil reclamation process, Ultrafiltration"—A. F. LISANTI and R. HELWICK, March, p 60
"Oil blast furnace, idle for a century, is refired," April, p 99
"Operation of a fully continuous tandem cold mill at Fukuyama"—K. HIKINO, T. ICHIMARU and H. ASAKAWA, Feb., p 33
"Oregon Steel Mills' new slab reheat furnace," April, p 103
"Oxygen steelmaking, A quarter century of"—J. K. STONE, Aug., p 54

P

"Packaging America's freedom"—E. W. MALLICK, March, p 33
"PEC enters energy conservation market—dry coke quenching," July, p 73
"Pellet plant and port in Brazil, SAMARCO," Aug., p 83
"Pickling, Latest advances in HCl coil"—J. W. RIPPIN and A. MATTIUSSI, Dec., p 61
"Pictorial Review, AISE Western Conference," Nov., p 81
"Pictorial Review, Fifth Annual AISE Utah Invitational—," Sept., p 106
"Pictorial Review, 1977 AISE Convention and Iron and Steel Exposition," Nov., p 82
"Pipe mill for Dalmine, SpA, 13 3/8-in. seamless"—G. BALZI, Dec., p 25
"Pittsburg Works, Tin coating weight gage at U.S. Steel's"—J. R. GIBSON, Jan., p 51
"Pollution control system, Consider all the options for a sinter plant air"—J. H. WAUGH and R. J. TRISCORI, March, p 36
"Power system of an integrated steel mill, Electrical"—R. H. CRAIG, May, p 25
"Predicting operating temperatures in rolling element bearings for backup rolls"—J. V. POPLAWSKI, March, p 41
"Presidential emergency task force needed," Nov., p 73
"President's Message," Jan., p 24
"Preventive maintenance of rotating machinery using vibration detection"—R. L. FOX, April, p 52
"Prices?, Does steel need an increase in" Jan., p 89
"Puebla 2—A fantastic success, HYLSA's"—C. J. LABEE, Oct., p 25
"Pulverized coal injection for blast furnaces, A current look at"—G. F. KEENAN and D. M. MORRISON, Oct., p 30
"Purofer direct reduction process, First industrial application of Thyssen," Aug., p 87
"Pyrometer for rod mills, A small-target scanning"—T. P. MURRAY, May, p 40

Q

"Quarter century of oxygen steelmaking, A"—J. K. STONE, Aug., p 54
"Quench car system, Engineering criteria for a hooded"—H. RUDOLPH and S. SAWYER, March, p 27

R

"Rails at Kaiser Steel, Thermite welding of crane"—G. A. PARK, D. D. DOMONOSKI and R. P. FAHERTY, Sept., p 77
"Rankin elected President of AISE for 1978, W. M.," Oct., p 23
"Reactive power compensation, Thyristor switched capacitors for"—T. SJOKVIST, April, p 40
"Recuperator, BSC's new high-pressure ceramic"—F. W. CLEAVER and W. R. LAWS, Sept., p 54
"Regeneration process, Sliding bed HCl," Sept., p 91
"Regulatory overload"—R. H. MALOTT, April, p 105
"Reheat furnace, Oregon Steel Mills' new slab," April, p 103
"Reheat furnaces, Energy cost savings as applied to the design of"—DR. ING. P. FONTANA, DR. ING. G. CARRARA and T. BRUNO, July, p 40
"Republic's great American bar mill—Cold finishing operations at Gary, Ind."—W. L. PALMER, Aug., p 50
"Republic's new waste water treatment plant," Sept., p 98
"Rod mill at GKN (South Wales) Ltd.," March, p 62
"Rod mill at Laclede, Modernized," Aug., p 81
"Rod mills, A small-target scanning pyrometer for"—T. P. MURRAY, May, p 40
"Roll force measurement, A new development in"—R. F. SMITH and J. H. BAKER, Nov., p 53
"Roll surface behavior in stands F-1, F-2 and F-3, Basic concepts of"—W. H. BETTS, Jan., p 44
"Rolling, Computer simulation of tandem roughing mill"—C. HANICH and W. G. WRIGHT, Jan., p 39
"Rolling Mill Conference—Abstracts of papers to be presented, 1977 AISE," April, p 83
"Rolling Mill Conference Chairmen, 1977 AISE," April, p 62
"Rolling Mill Conference—Pictorial review, 1977 AISE," June, p 30
"Rolling Mill Conference Program, 1977 AISE," April, p 31
"Rolling mills, Force sensing in"—A. ZELTKALNS and R. L. RICCIATTI, Jan., p 72
"Rolling mills—Mathematical models and experimental results, Dynamics of"—G. MONACO, Dec., p 35
"Rolls, Chill microstructure of cast-iron hot strip mill work"—DR. R. R. JUDD, Sept., p 83
"Rolls coated with tungsten carbide, Friction and wear characteristics of"—J. M. FREIN, Dec., p 52
"Rolls outperform double-poured rolls, Centrifugally cast"—DR. J. HONDA, T. ENDO, M. FUKUDA and Y. NAKAGAWA, Oct., p 50
"Rolls reduce cost and improve productivity in H-beam mills, Composite sleeved"—Y. SEKIMOTO, Sept., p 64
"Roughing mill rolling, Computer simulation of tandem"—C. HANICH and W. G. WRIGHT, Jan., p 39

S

"Safety starts with me"—G. A. JEDENOFF, June, p 33
"St. Marys Bridge, Steel construction completed on," Aug., p 85
"SAMARCO pellet plant and port in Brazil," Aug., p 83
"Scholarships, AISE Awards and," March, p 14
"Scholarships Awarded, Four AISE," June, p 53
"Scrap metal, Calspan study on reprocessing," Feb., p 67
"Scrap use in iron and steel, Tinned"—J. AINSWORTH, Feb., p 63
"Seamless pipe mill for Dalmine, SpA, 13 3/8-in."—G. BALZI, Dec., p 25
"Seventy years of service to the iron and steel industry—AISE," April, p 48
"Sinter plant air pollution control system, Consider all the options for a"—J. H. WAUGH and R. J. TRISCORI, March, p 36
"Sliding bed HCl regeneration process"—C. J. LABEE, Sept., p 91
"Slitting lines, Advances in strip tensioning for coil," July, p 76
"Solid state limit switches control flying shears at Ivaco," Jan., p 91
"Solid state limit switches in the steel industry"—G. STEINBERG, Oct., p 39
"Solmer's 90-in. hot strip mill"—G. GIRY, Jan., p 24
"Soviet metallurgy: achievements and prospects"—D. SC. A. SHALIMOV, Aug., p 47
"Speed and safety emphasized in removing furnace linings or scabs"—C. J. LABEE, April, p 89
"Speer, speaks out on Merrill Lynch report, AISI chairman, E. B.," Oct., p 43
"Spin forging process cuts steel input by 75%," April, p 61
"*Standard No. 6* on Armco Steel, Impact of"—R. W. ADAMS, May, p 31
"Statistical Highlights—1967-1976," July, p 63
"Steel construction completed on St. Marys Bridge," Aug., p 85
"Steel is no bargain, Foreign," Nov., p 59
"Steel plans in the Third World, Future"—W. T. HOGAN, S.J., Nov., p 25
"Steelmaking, A quarter century of oxygen"—J. K. STONE, Aug., p 54
"Steelmaking, Superheating for energy and material conservation in basic oxygen"—C. H. WILLIAMS, June, p 54
"Steelmaking with HYL metallized pellets, Concepts relevant to"—F. A. RODRIGUEZ, D. H. CARRILLO and K. A. JACKSON, Jan., p 57
"Stelco's Lake Erie Development," June, p 65
"Straightening machines for pipe, tubes, bars and sections, Modern"—SUTTON, JR., J. B., Nov., p 38
"Strip mill finishing trains, A new tool for coordinated design of hot"—L. PASOLINI, P. GIARDINA and M. RIVOLTA, Sept., p 59
"Strip mill, New approach to computer setup of the hot"—S. WILMOTTE, M. ECONOMOPOULOS, R. COLIN and G. THOMAS, Sept., p 70
"Strip mill work rolls, Chill microstructure of cast-iron hot"—DR. R. R. JUDD, Sept., p 83
"Sumitomo Metal Industries' 14-in. bar mill in full production," April, p 77
"Summary of the IISI meeting—Osaka, Japan"—C. J. LABEE, Jan., p 80
"Superheating for energy and material conservation in basic oxygen steelmaking"—C. H. WILLIAMS, June, p 54
"Surface behavior in stands F-1, F-2 and F-3, Basic concepts of roll"—W. H. BETTS, Jan., p 44
"Suspension gasifier offers economies of scale"—M. P. MAY, Nov., p 46
"Switches in the steel industry, Solid state limit"—G. STEINBERG, Oct., p 39

T

"Tandem roughers of hot strip mills, Tension-free control applied to"—A. YAMASHITA, S. MATSUKA, T. KOIKE and Y. MOROOKA, July, p 54
"Temperatures in rolling element bearings for backup rolls, Predicting operating"—J. V. POPLAWSKI, March, p 41
"Tension-free control applied to tandem roughers of hot strip mills"—a. YAMASHITA, S. MATSUKA, T. KOIKE and Y. MOROOKA, July, p 54
"Texas Steel Corp.—Korf's second U.S. mini-mill, Georgetown"—J. A. KOTSCH, July, p 33
"The contour of blast furnace hearths"—DR. L. M. SAUNDERS, May, p 44
"The need and the green for greenfield steel plants," June, p 52
"The New River Gorge Bridge—World's longest main arch span," May, p 55
"The PERA CUTFAST process—a breakthrough in machining practice"—A. I. W. MOORE, Nov., p 63
"Theory and practice for design, inspection and maintenance—Coke-oven gas distribution and instrumentation systems"—S. J. KLETCH, G. W. BAGGLEY and P. R. BLEACKLEY, June, p 34
"Thermite welding of crane rails at Kaiser Steel"—G. A. PARK, D. D. DOMONOSKI and R. P. FAHERTY, Sept., p 77
"Third World, Future steel plans in the"—W. T. HOGAN, S.J., Nov., p 25
"Thrycergh bar mill—part of BSC's bar rationalization scheme," March, p 71
"Thyristor switched capacitors for reactive power compensation"—J. SJOKVIST, April, p 40
"Timken's $10 million air cleaning system," Feb., p 65
"Tin coating weight gage at U.S. Steel's Pittsburg Works"—J. R. GIBSON, Jan., p 51
"Tinned scrap use in iron and steel"—J. AINSWORTH, Feb., p 63
"Tool for coordinated design of hot strip mill finishing trains, A new"—L. PASOLINI, P. GIARDINA and M. RIVOLTA, Sept., p 59
"Trunnion pin repair at Kaiser's BOSP shop, Emergency"—J. M. CAMPBELL and N. W. MINESINGER, Dec., p 29
"Tube mill, Babcock & Wilcox opens new Ambridge"—J. A. KOTSCH, Sept., p 95
"Tube welding and drawing line, Combined"—M. MEIER, Sept., p 51
"Tungsten carbide, Friction and wear characteristics of rolls coated with"—J. M. FREIN, Dec., p 52
"Tying equipment improves efficiency and economy of steel packaging, Wire," April, p 83

U

"Ultrafiltration oil reclamation process"—A. F. LISANTI and R. HELWICK, March, p 60
"U.S. Steel Corp. receives marine award," Aug., p 79
"U.S. Steel's newest 12-in. bar mill at Gary," March, p 65
"U.S. Steel's Pittsburg Works, Tin coating weight gage at"—J. R. GIBSON, Jan., p 51
"Utah Invitational—Pictorial Review, Fifth Annual AISE," Sept., p 106

V

"Valley Mold and Iron, New lighting for," Feb., p 61
"Vibration detection, Prevention maintenance of rotating machinery using"—R. L. FOX, April, p 52

W

"Waste water treatment plant, Republic's new," Sept., p 98
"Water treatment plant, Republic's new waste," Sept., p 98
"We can't afford it!"—I. ARDITI, Nov., p 61
"Wear characteristics of rolls coated with tungsten carbide, Friction and"—J. M. FREIN, Dec., p 52
"Wear problems, A solution to failure and"—J. A. KOTSCH, Oct., p 35
"Weirton Steel Div.—Brown's Island coke plant"—R. M. TRAUBERT, Jan., p 61
"Welding and drawing line, Combined tube"—M. MEIER, Sept., p 51
"Welding of crane rails at Kaiser Steel, Thermite"—G. A. PARK, D. D. DOMONOSKI and R. P. FAHERTY, Sept., p 77
"Western Conference—Pictorial Review, AISE," Nov., p 81
"Wheel calculations in Europe, Newest methods applied to"—M. LeMEUR, G. RICHTER and L. HESSER, July, p 35
"Widia's 50th anniversary," April, p 97
"Wire tying equipment improves efficiency and economy of steel packaging," April, p 83
"World steel in figures—1977," Aug., p 40